

Claims

1. (1) A polypeptide comprising an amino acid sequence represented by SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8 or SEQ ID NO:10 and having enhanced expression in chronic rheumatoid arthritis patients or

(2) a polypeptide comprising an amino acid sequence represented by SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8 or SEQ ID NO:10 in which 1 to 10 amino acids are substituted, deleted and/or inserted and having enhanced expression in chronic rheumatoid arthritis patients.

2. A polypeptide consisting of an amino acid sequence represented by SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8 or SEQ ID NO:10.

3. A polynucleotide encoding the polypeptide according to claim 1 or 2.

4. An expression vector comprising the polynucleotide according to claim 3.

5. A cell transformed with the expression vector according to claim 4.

6. A antibody which binds to a polypeptide comprising an amino acid sequence represented by SEQ ID NO:4 and having enhanced expression in chronic rheumatoid arthritis patients, a polypeptide comprising an amino acid sequence represented by SEQ ID NO:4 in which 1 to 10 amino acids are substituted, deleted and/or inserted and having enhanced expression in chronic rheumatoid arthritis patients or a polypeptide consisting of an amino acid sequence represented by SEQ ID NO:4.

7. A polynucleotide which specifically hybridizes to a polynucleotide represented by SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7 or SEQ ID NO:9 and has at least 15 nucleotides.

8. A method for detecting rheumatoid arthritis comprising

1) a step of assaying the expression level of a gene in a synovial biopsy sample of a test subject, said gene comprising

i) the nucleotide sequence according to claim 3 or

ii) a polynucleotide sequence encoding a polypeptide comprising an amino acid sequence represented by SEQ ID NO:12 and having enhanced expression in chronic rheumatoid arthritis patients, a polypeptide comprising an amino acid sequence represented by SEQ ID NO:12 in which 1 to 10 amino

acids are substituted, deleted and/or inserted and having enhanced expression in chronic rheumatoid arthritis patients, or a polypeptide consisting of an amino acid sequence represented by SEQ ID NO:12; and

(2) a step of comparing the expression level of the gene with the expression levels thereof in a synovial biopsy sample in a normal subject or a patient with non-chronic rheumatoid arthritis.

9. A kit for detecting chronic rheumatoid arthritis comprising forward and reverse primers designed for enabling specific amplification of a gene represented by

1) the polynucleotide according to claim 3 or

2) a polynucleotide encoding a polypeptide

comprising an amino acid sequence represented by SEQ ID NO:12 and having enhanced expression in chronic rheumatoid arthritis patients, a polypeptide comprising an amino acid sequence represented by SEQ ID NO:12 in which 1 to 10 amino acids are substituted, deleted and/or inserted and having enhanced expression in chronic rheumatoid arthritis patients, or a polypeptide consisting of an amino acid sequence represented by SEQ ID NO:12.